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IS-ENES1: InfraStructure for the European Network for Earth System Modelling

Description

IS-ENES developed a virtual Earth System Modelling Resource Centre (v.E.R.C.), integrating the European Earth system models (ESMs) and their hardware, software, and data environments. The overarching goal of this e-infrastructure was to further integrate the European climate modelling community, to help the definition of a common future strategy, to ease the development of full ESMs, to foster the execution and exploitation of high-end simulations, and to support the dissemination of model results and the interaction with the climate change impact community. The v.E.R.C. encompassed models, the tools to prepare, evaluate, run, store and exploit model simulations, the access to model results and to the European high-performance computing ecosystem – in particular the EU large infrastructures DEISA2 and PRACE. The v.E.R.C. developed by IS-ENES was based on generic ICT, Grid technology and subject-specific simulation codes and software environments.

IS-ENES was the infrastructure project of the European Network for Earth System Modelling (ENES). ENES gathered the European climate and Earth system modelling community working on understanding and prediction of future climate change. This community was strongly involved in the assessments of the Intergovernmental Panel on Climate Change and provides the predictions on which EU mitigation and adaptation policies are elaborated.

IS-ENES combined expertise in Earth system modelling, in computational science, and in studies of climate change impacts. IS-ENES provided a service on models and model results both to modelling groups and to the users of model results, especially the impact community. Joint research activities improved the efficient use of high-performance computers, model evaluation tool sets, access to model results, and prototype climate services for the impact community. Networking activities increased the cohesion of the European ESM community and advance a coherent European Network for Earth System modelling.

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